

# Work Order ID 109969

December-10-13 11:55:25 AM

**\*109969\***

Page 1

Item ID: D2580-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: 205 Bent Tube

Start Date: 12/10/13 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 12/11/13 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan: W Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2580	F

100 0.00

**\*100\***

Skid tubes

Memo

0.00

Skid tubes

1- Inspect mat'l D2500-1-190 for damage.

2-Drill pilot holes using drill jig DT 8149 A-BC-D

3-Open holes to 0.508" as per Dwg D2580

4-Deburr holes per QSI002 section 4.2.3 and blow out all chips from inside of tube

5- Test fit inspection saddles on FWD & AFT saddle holes using DT9916.

4 2 13-12-11 D6L

101

QC6- Inspect dimensions to drawing 0.00

**\*101\***

QC

Memo

0.00

Quality Control

13-12-11

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Page 2

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Setup Start

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Item Name: 205 Bent Tube

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Required Date: 12/11/13 Req'd Qty: 4.00

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

\*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*110*</b>									
HandFinish	Memo	0.00				4	0	13-12-11	PGL
Hand Finishing									
120	QC7-Inspect Chemical Conversion Coat	0.00							
<b>*120*</b>									
QC	Memo	0.00						13-12-11	DP
Quality Control									
125		0.00							
<b>*125*</b>									
Skidtubes	Memo	0.00				4	0	13-12-11	DOC
Skidtubes	1- Bond web in place per QSI 015.								

A/R Sikaflex-291 batch: 127317  
Sikaflex expire date: 14-8-16  
Start time and date: 1:00 pm bond for 12hrs



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\*109969\*

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Item ID: D2580-1

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: 205 Bent Tube

Start Date: 12/10/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 12/11/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC5- Inspect part completeness to step on W/O	0.00							
*130*									
QC	Memo	0.00							
Quality Control									
140	Identify as per dwg & Stock Location: <u>4/6</u>	0.00							
*140*									
Packaging	Memo	0.00							
Packaging									
150	QC21- Final Inspection - Work Order Release	0.00							
*150*									
QC	Memo	0.00							
Quality Control									



13-12-16

13-12-16  
(4)

13/12/18  
C213/12/18

# Picklist Print

December-10-13 11:55:25 AM

Page 1

Work Order ID: 109969

Parent Item: D2580-1

Parent Item Name: 205 Bent Tube

Start Date: 12/10/13

Required Date: 12/11/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP B01.11.08 Revised Step 9, 10, 12, and 13 SM IPP Rev:C 10.12.01 as per DEO D1  
DD verf:ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-190 Ext'n -I' Beam Tube 4"		Manufactured	No			100	Each	99.0000	1	4			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				HALL		99							
				105279		83							
				99280		16							
D2596 Web, 205 Skidtube		Manufactured	No			100	Each	7.0000	1	4			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				LG002 107898		7							
				103741		4							
				80820		1							
				95599		2							

13-12-10 DGL

13-12-11 DGL

LIST OF MATERIALS					
ITEM	QTY -041	QTY -045	QTY -047	PART NUMBER	DESCRIPTION
1	X			D2580-041	SKIDTUBE ASSEMBLY
2		X		D2580-045	SKIDTUBE ASSEMBLY
3			X	D2580-047	SKIDTUBE ASSEMBLY
4	1	1	1	D2500-1-190	EXTRUSION
5			16	D2570	BUSHING
6	1	1	1	D2576-3	STEP
7			4	D2579	SPACER
8	16	16	8	D2594-1	PLUG
9	16	16	8	D2594-3	O-RING
10	1	1	1	D2596	205 WEB
11	1	1	1	D2855	AFT CAP
12	1	1		D3564-5	WEARSHOE
13	1	1		D3564-9	WEARSHOE
14	1	1		D3564-11	WEARSHOE
15	1	1		D3564-13	WEARSHOE
16	2	2		D3566-1	GASKET
17	1	1		D3566-5	GASKET
18	1	1		D3566-13	GASKET
19	20	20	24	D4202-1	SPACER
20			1	D4406-041	WEARPLATE ASSEMBLY
21			1	D4406-043	WEARPLATE ASSEMBLY
22	50	50		ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
23	50	50		AN3C4A	BOLT
24	2	2	2	AN3-5A	BOLT
25			8	AN4-45A	BOLT
26	50	50		NAS1149C0332R	WASHER (AN960C10L)
27	2	2	2	NAS1149D0332J	WASHER (AN960D10L)
28			8	MS21042-4	NUT (OR MS21042L4)

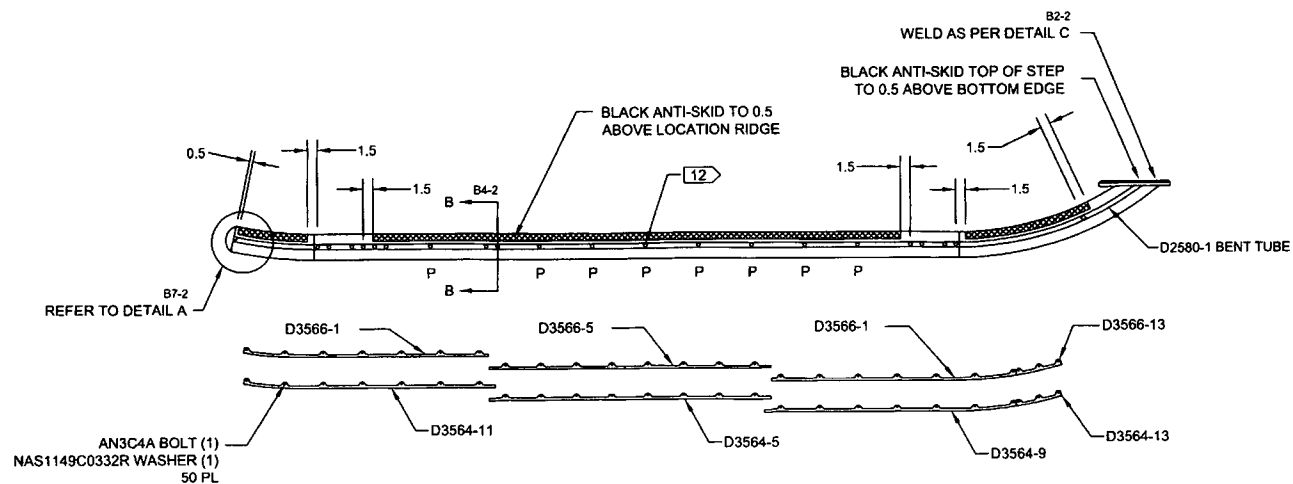
# GENERAL NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ASSEMBLY (-041/-047) GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
POWDER COAT ASSEMBLY (-045) GREEN SANDEX (REF 4.3.5.8) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D2580-041 = 34.5 lbs  
D2580-045 = 34.5 lbs  
D2580-047 = 37.7 lbs
- 8) WELDING PER DART QSI 004.
- 9) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO  
OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE  
BENDING. ENSURE HOLES LINE-UP.
- 10) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND  
ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS  
ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 11) USE DART DRILL TEMPLATE DT8217 & DT8937 ONLY FOR D2580-041/-045 TO LOCATE AND  
DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTIONS B-B  
AND F-F (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS  
WITH SIKAFLEX-241/291.
- 12) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)  
AFTER FINISH (16 PLACES FOR D2580-041/-045 AND 8 PLACES FOR D2580-047)
- 13) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE  
WITH THE SPACER AT THIS LOCATION

RELEASED  
2013-07-13

F	INCORPORATE DEO D2580-E-1 PER PAR12-218	DC	13.06.20
E	ADD D2580-047 (ZN C4-7) AND D2580-7 (ZN B3-8); INCLUDED DEO D2580-D-1; REFORMATTED DRAWING TO CURRENT STANDARDS; DT8217 & DT8937 WAS TD2577-205 (ZN C4-1)	RF	11.06.21
D	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/ 9183	PH	07.04.05
C	REDRAWN, INCLUDED DEO 9094/ 9097	CP	98.08.26
B	AS MANUFACTURED	DS	96.12.02
A	NEW ISSUE	DS	96.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DC		
CHECKED	RF	DRAWING NO.	REV. F
MFG. APPR.	DD	D2580	SHEET 1 OF 8
APPROVED	HS	TITLE	SCALE
DE APPR.	#	205 SKIDTUBE ASSEMBLY	NTS
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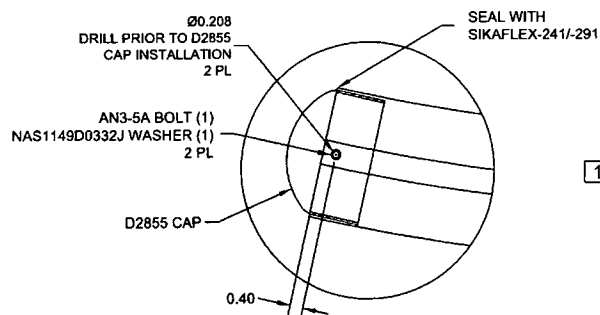
8 7 6 5 4 3 2 1



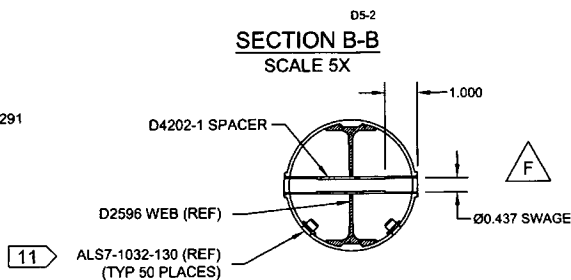
D2580-041 ASSEMBLY DETAIL

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2013-07-15

DETAIL A  
SCALE 5X

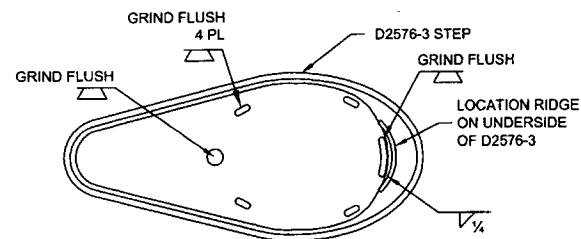


SECTION B-B  
SCALE 5X

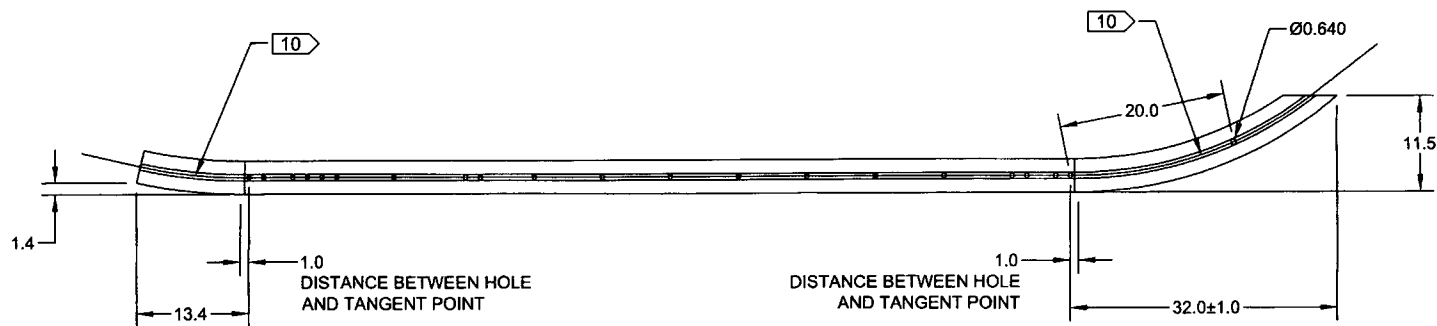


AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:  
1. INSERT D4202-1 SPACER (20 PLACES)  
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002  
3. TRIM / GRIND FLUSH PER QSI 002

DETAIL C  
SCALE 5X



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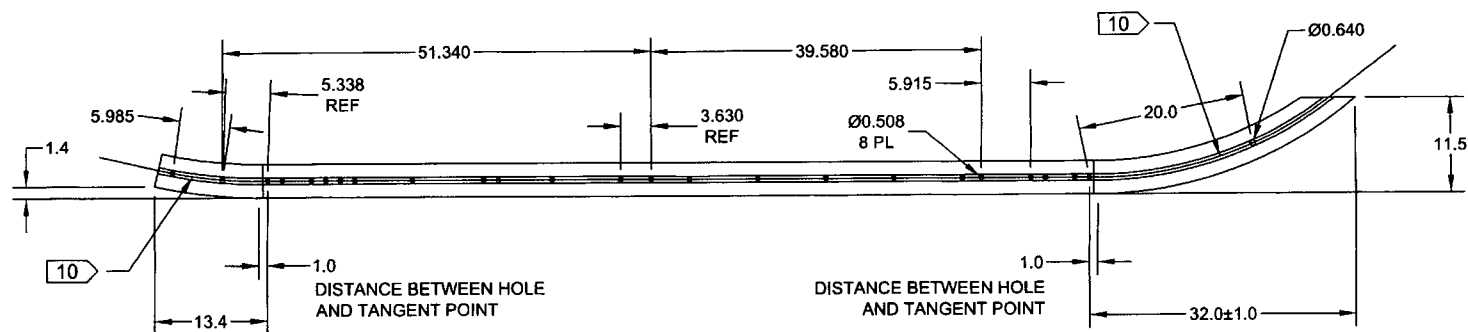
D2580-1 BENT TUBE  
(MAKE FROM D2580-101 TUBE)

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**D2580-5 BENT TUBE**  
(MAKE FROM D2580-101 TUBE)

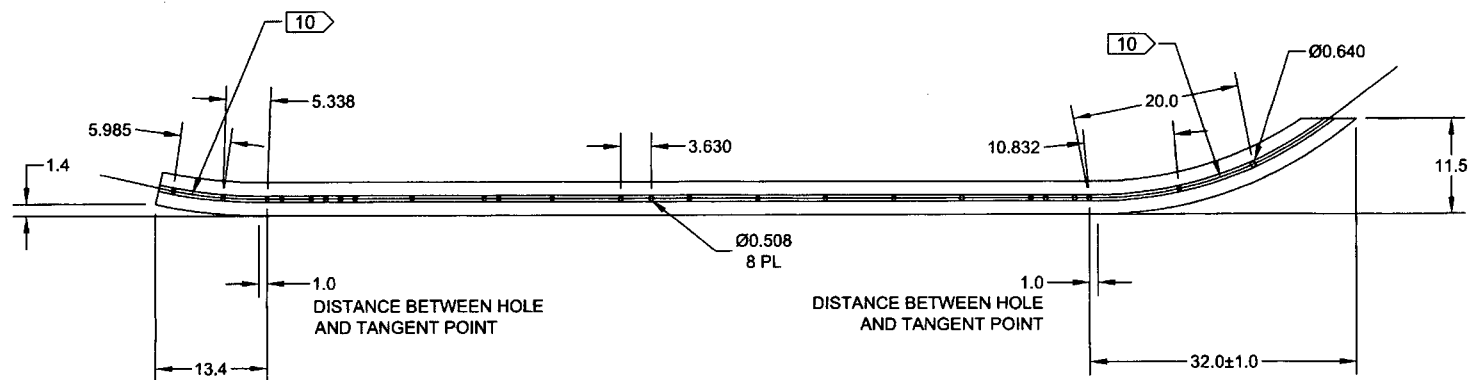
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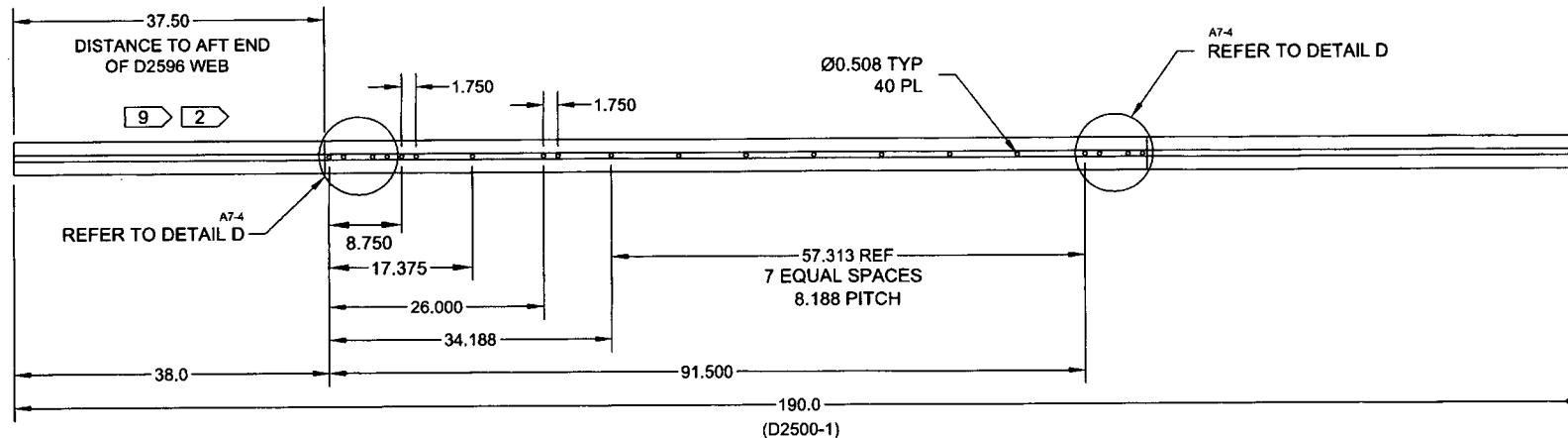


D2580-7 BENT TUBE  
(MAKE FROM D2580-101 TUBE)

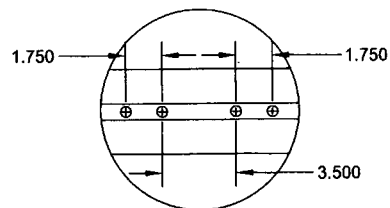
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D2580-101 TUBE



DETAIL D D3-4  
SCALE 5X C7-4

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